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US-PAT-NO: 6190669

DOCUMENT-IDENTIFIER: US 6190669 B1

TITLE: Attenuated mutants of salmonella which constitutively express the Vi antigen

DATE-ISSUED: February 20, 2001

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PRIOR-ART-DISCLOSED:

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	PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
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<input type="checkbox"/>	<u>5783196</u>	July 1998	Noriega	424/234.1

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ATTY-AGENT-FIRM: Sughrue, Mion, Zinn Macpeak & Seas. PLLC

ABSTRACT:

Attenuated Salmonella mutants which constitutively express the Vi antigen are disclosed, as well as vaccines against typhoid fever containing the same, live vector vaccines containing the same, and DNA-mediated vaccines containing the same.

23 Claims, 17 Drawing figures